



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,209	02/11/2004	Yoshiaki Hori	0505-1269P	9980

2292 7590 02/20/2007  
BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER
----------

TRAN, DIEM T

ART UNIT	PAPER NUMBER
----------	--------------

3748

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/20/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/20/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

**Office Action Summary**

Application No.

10/775,209

Applicant(s)

HORI ET AL.

Examiner

Diem Tran

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on amendment filed on 21 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This office action is in response to the amendment filed on 11/21/06. In this amendment, claims 1, 9 have been amended. Overall, claims 1-16 are pending in this application.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

*Claims 1-3, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikenoya et al. (US Patent 4,434,615) in view of design choice.*

Regarding claims 1, 9, Ikenoya discloses an exhaust gas purifying device for a four-cycle engine having a secondary air supply passage for supplying secondary air to an exhaust port and a valve for opening and closing the secondary air supply passage with exhaust pulsations, comprising a longitudinal axis of said exhaust port is disposed at an angle with respect to a longitudinal axis of a camshaft as viewed in a plan view of the engine, and said valve is disposed on a side of the engine which is perpendicular to said camshaft (see Figures 1-3); however, fails to disclose that said longitudinal axis of said exhaust port is parallel to said longitudinal axis of camshaft.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to utilize a longitudinal axis of an exhaust port being parallel to a longitudinal axis of camshaft because Applicant has not disclosed that the

Art Unit: 3748

longitudinal axis of said exhaust port being parallel to a longitudinal axis of camshaft provides an advantage, is used for a particular purpose, or solves a stated problem.

One of ordinary skill in the art, furthermore, would have expected Ikenoya's device, and applicant's invention, to perform equally well with either the longitudinal axis of said exhaust port is not parallel with the axis of camshaft as taught by Ikenoya or the claimed the longitudinal axis of said exhaust port is parallel to a longitudinal axis of camshaft in the pending application because both locations would perform the same function of guiding exhaust gas flowing out of the engine. Therefore, it would have been prima facie obvious to modify Ikenoya to obtain the invention as specified in claims 1, 9 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Ikenoya.

Regarding claims 2, 10, the modified Ikenoya device discloses all the claimed limitations as discussed in claims 1, 9 above, Ikenoya further discloses that said valve is disposed on the front side of the vehicle body and a pipe (34) for supplying the secondary air is connected between the valve and an air cleaner (8) disposed behind the engine (see Figures 1, 3); however, fails to disclose that said valve is disposed on either a left or right side of a vehicle body, and a pipe for supplying the secondary air is connected between the valve and an air cleaner disposed behind the engine.

With regard to the limitation directed to the location of the valve being disposed on left or right side of the vehicle body, it is the examiners position that the such would have been an obvious matter of design choice well within the level of ordinary skill in the art depending on design variables such as the available spacing etc...Moreover, there is nothing in the record which establishes that the claimed ranges present a novel or unexpected result (see In re Kuhle,

526 F.2d 553, 188 USPQ 7(CCPA 1975)).

Regarding claims 3, 11, Ikenoya further discloses that the secondary air supply passage includes a substantially vertical hole (36) and a substantially horizontal hole (41) disposed in a cylinder block for communicating with the exhaust port (see Figure 3).

***Claims 4-8, 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikenoya et al. (US Patent 4434615) in view of Hori et al. (US Patent 6,311,483).***

Regarding claims 4, 12, the modified Ikenoya device discloses all the claimed limitations as discussed in claims 3, 9 above, however, fails to disclose that the secondary air supply passage includes a substantially vertical hole and a substantially horizontal hole disposed in a cylinder head for communicating with the exhaust port. Hori teaches that a secondary air supply passage (110) includes a substantially vertical hole (112) and a substantially horizontal hole (111) disposed in a cylinder head for communicating with the exhaust port (see Figure 10).

It would have been obvious to one having ordinary skill in the art, to have utilized the teaching of Hori in the modified device of Ikenoya, since the use thereof would have been conventional in the art.

Regarding claims 5, 13, Ikenoya further discloses that said cylinder head (2) is mounted on said cylinder block (1) and said substantially vertical hole and the substantially horizontal hole disposed in the cylinder block and the cylinder head are in communication with each other and with the exhaust port (see Figures 1, 3).

Regarding claims 6, 14, Ikenoya further discloses that a secondary air supply conduit operatively connected to an air cleaner (8) and said substantially vertical hole and the

substantially horizontal hole disposed in the cylinder block and the cylinder head for communicating air to the exhaust port (see Figures 1, 3).

Regarding claims 7, 15, Ikenoya further discloses that said valve is a reed valve (23) operatively positioned relative to the substantially vertical hole and a substantially horizontal hole disposed in the cylinder block and the cylinder head for selectively permitting communication between the secondary air supply conduit (34) and the exhaust port (6) (see Figures 1, 3).

Regarding claim 8, Ikenoya further discloses that said reed valve (23) is disposed relative to the substantially horizontal hole disposed in the cylinder block (see Figure 3).

Regarding claim 16, Ikenoya further discloses that said reed valve (23) is disposed relative to the substantially horizontal hole disposed in the cylinder block (1) (see Figure 3).

### ***Response to Arguments***

Applicant's arguments filed on 11/21/06 have been fully considered but they are moot in view of a new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

Art Unit: 3748


will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


***Conclusion***

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (571) 272-4866. The examiner can normally be reached on Monday -Friday from 8:00 a.m.- 6:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (571) 272-4859. The fax number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-786-9199 (toll-free).

  
Diem Tran  
Patent Examiner

  
**THOMAS DENION**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**